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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,929	07/31/2003	Eizaburo Watanabe	1186.1017D	9501

21171 7590 02/24/2005

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EXAMINER
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HODGES, MATTHEW P

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/630,929	<b>Applicant(s)</b> WATANABE ET AL	
	<b>Examiner</b> Matt P Hodges	<b>Art Unit</b> 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 November 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

The Amendment, filed on 11/19/2004, has been entered and acknowledged by the Examiner.

Cancellation of claims 3-10 and 12 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by Okumura et al. (US 6,100,633).

Regarding claim 11, Okumura discloses (see figure 2) a plasma display panel including, a substrate (2), an address electrode (4), and a barrier rib structure (3). The barrier rib structure is a recessed structure where the recess is formed between each of the barrier ribs. The bottom portion of the barrier rib is straight on both sides and a second portion that is tapered is formed on top of the bottom portion to form the barrier rib structure. Further there is a reflective layer (11) that reflects light from the substrate from all areas except the top of the barrier rib structure. Therefore it is inherent that the back light is at least 50% reflective to incoming light.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asano et al. (US 5,909,083) in view of Kawai et al. (US 6,199,404).

Regarding claims 1 and 2, Asano discloses (see figure 1F) a plasma display panel including, a substrate (11), an address electrode (2), a dielectric layer (3) covering the address electrode, and a barrier rib structure (8). The barrier rib structure is a recessed structure where the recess is formed between each of the barrier ribs. The dielectric layer is 20  $\mu\text{m}$  thick. (Column 17 lines 45-53). Further both the dielectric layer and the barrier rib structure are formed from compositions including low melting point glass. (Column 17 lines 25-35 and Lines 60-65). Asano does not appear to specify the use of the exact same material for the dielectric layer and the barrier rib. However Kawai, in the same field of endeavor, discloses the use of a single low-melting glass paste to form both the dielectric layer and the barrier ribs. (Column 4 lines 20-25). Kawai discloses an advanced manufacturing process that applies both the dielectric layer and the barrier ribs simultaneously to the bottom substrate. This process is advantageous over the engraving method disclosed by Asano, in that it decreases the manufacturing time and complexity. Further using a single material for both the dielectric layer and barrier ribs reduces the number of steps involved and also ensures that the bond between the barrier ribs and

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dielectric layer is strong independent of thermal expansion. Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a single low melting point glass for both the dielectric layer and barrier ribs as taught by Kawai in to the device as disclosed by Asano in order to advantageously decrease the manufacturing time and complexity while further reducing the number of steps involved and ensuring that the bond between the barrier ribs and dielectric layer is strong independent of thermal expansion.

### ***Conclusion***

This rejection is made non-final as a new rejection has been applied and allowable subject matter has been withdrawn.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt P Hodges whose telephone number is (571) 272-2454. The examiner can normally be reached on 7:30 AM to 4:00 PM M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**JOSEPH WILLIAMS**  
**PRIMARY EXAMINER**